Highest Channel_PCC 10MHz Ch132523 RB1 Offset49 SCC 10MHz Ch132622 RB1 Offset0(2)

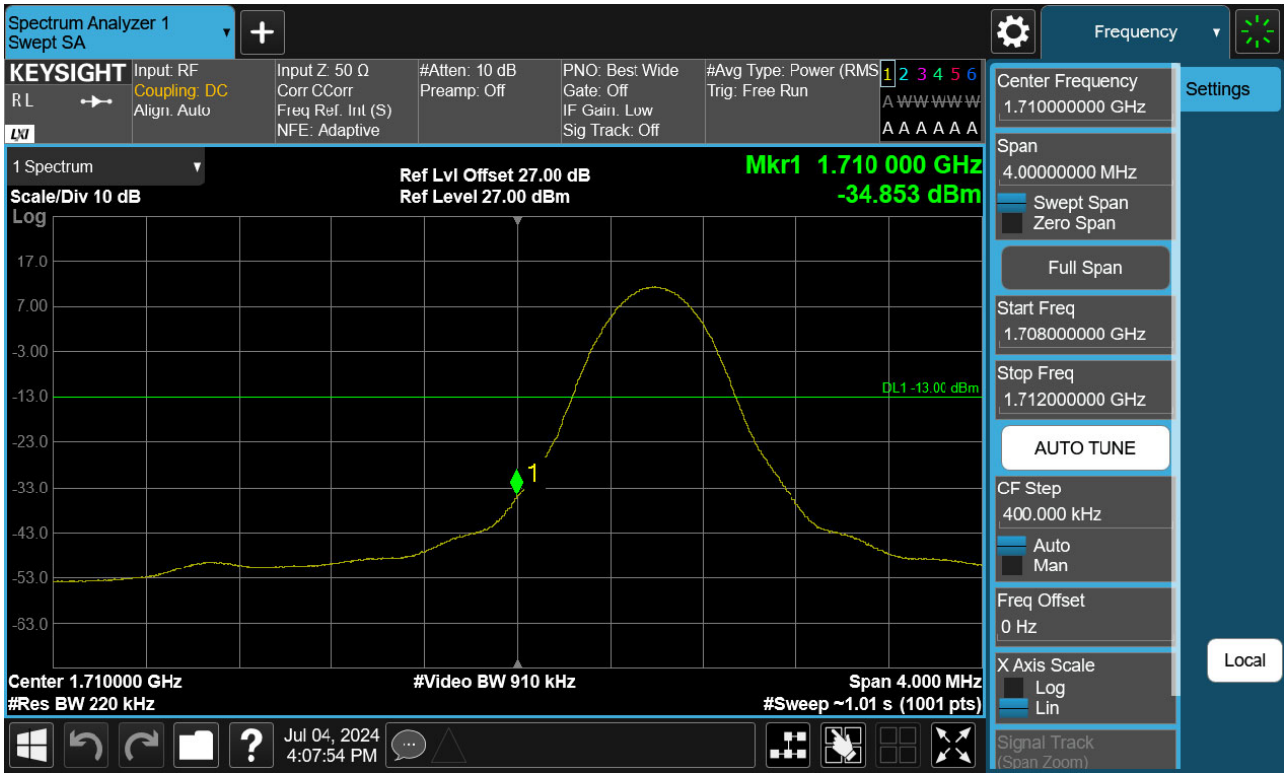
Highest Channel_PCC 10MHz Ch132523 RB50 Offset0 SCC 10MHz Ch132622 RB50 Offset0(1)

Highest Channel_PCC 10MHz Ch132523 RB50 Offset0 SCC 10MHz Ch132622 RB50 Offset0(2)

Lowest Channel_PCC 5MHz Ch131997 RB25 Offset0 SCC 5MHz Ch132045 RB25 Offset0(1)

Lowest Channel_PCC 5MHz Ch131997 RB25 Offset0 SCC 5MHz Ch132045 RB25 Offset0(2)

Lowest Channel_PCC 10MHz Ch132022 RB1 Offset0 SCC 5MHz Ch132094 RB1 Offset24(1)

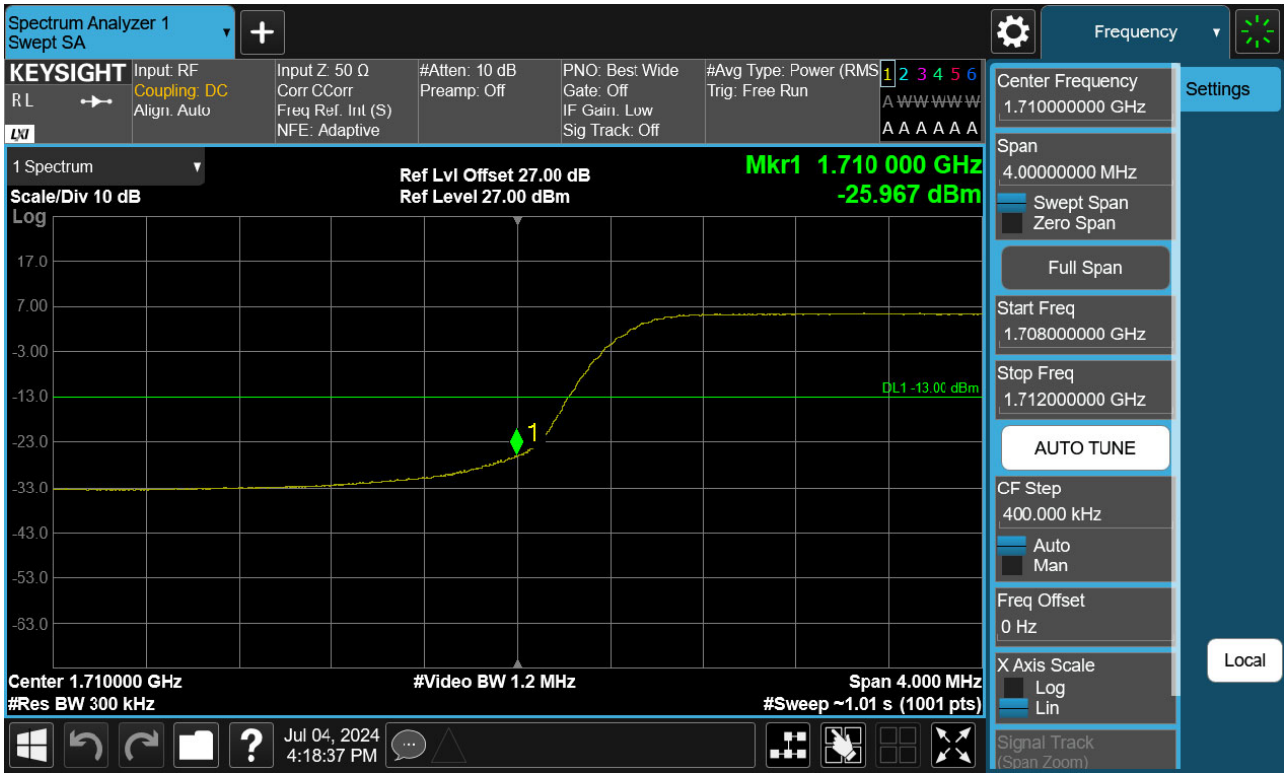


Lowest Channel_PCC 10MHz Ch132022 RB1 Offset0 SCC 5MHz Ch132094 RB1 Offset24(2)

Lowest Channel_PCC 10MHz Ch132022 RB1 Offset49 SCC 5MHz Ch132094 RB1 Offset0(1)

Lowest Channel_PCC 10MHz Ch132022 RB1 Offset49 SCC 5MHz Ch132094 RB1 Offset0(2)

Lowest Channel_PCC 10MHz Ch132022 RB50 Offset0 SCC 10MHz Ch132121 RB50 Offset0(1)



Lowest Channel_PCC 10MHz Ch132022 RB50 Offset0 SCC 10MHz Ch132121 RB50 Offset0(2)

8.5 Frequency Stability / Variation Of Ambient Temperature

▣ PCC Channel:	131997	
▣ PCC Frequency:	1712.5	MHz
▣ PCC BandWidth:	5	MHz
▣ SCC Channel:	132045	
▣ SCC Frequency:	1717.3	MHz
▣ SCC BandWidth:	5	MHz
▣ Voltage :	3.880	VDC
▣ LIMIT:	Emission must remain in band	

Voltage (%)	Power (VDC)	Temp. (°C)	PPM		Frequency Error (MHz)	
			PCC	SCC	PCC	SCC
100 %	3.880	+20(Ref)	0.035	-0.030	1712.46500	1717.32991
100 %		-30	0.032	0.029	1712.46769	1717.27102
100 %		-20	-0.041	-0.038	1712.54123	1717.33823
100 %		-10	0.024	0.035	1712.47591	1717.26499
100 %		0	0.033	-0.040	1712.46666	1717.33950
100 %		10	0.033	-0.040	1712.46666	1717.33985
100 %		30	0.036	0.030	1712.46442	1717.27019
100 %		40	-0.034	0.037	1712.53362	1717.26332
100 %		50	0.021	-0.049	1712.47888	1717.34919
Batt. Endpoint	3.300	20	0.033	0.026	1712.46650	1717.27424

- ▣ PCC Channel: 132022
- ▣ PCC Frequency: 1715.0 MHz
- ▣ PCC BandWidth: 10 MHz
- ▣ SCC Channel: 132094
- ▣ SCC Frequency: 1722.2 MHz
- ▣ SCC BandWidth: 5 MHz
- ▣ Voltage : 3.880 VDC
- ▣ LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (°C)	PPM		Frequency Error (MHz)	
			PCC	SCC	PCC	SCC
100 %	3.880	+20(Ref)	0.037	0.026	1714.96264	1722.17401
100 %		-30	0.024	0.022	1714.97604	1722.17800
100 %		-20	0.026	-0.048	1714.97434	1722.24800
100 %		-10	0.035	0.037	1714.96515	1722.16314
100 %		0	0.030	0.022	1714.96950	1722.17798
100 %		10	0.040	0.030	1714.95965	1722.17024
100 %		30	0.037	0.032	1714.96282	1722.16769
100 %		40	0.038	0.018	1714.96231	1722.18200
100 %		50	0.037	-0.037	1714.96328	1722.23703
Batt. Endpoint	3.300	20	0.026	-0.036	1714.97380	1722.23558

▣ PCC Channel: 132047
▣ PCC Frequency: 1717.5 MHz
▣ PCC BandWidth: 15 MHz
▣ SCC Channel: 132140
▣ SCC Frequency: 1726.8 MHz
▣ SCC BandWidth: 5 MHz
▣ Voltage : 3.880 VDC
▣ LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (°C)	PPM		Frequency Error (MHz)	
			PCC	SCC	PCC	SCC
100 %	3.880	+20(Ref)	0.030	0.027	1717.47041	1726.77315
100 %		-30	0.038	0.042	1717.46155	1726.75837
100 %		-20	-0.054	-0.049	1717.55387	1726.84888
100 %		-10	0.024	-0.039	1717.47620	1726.83861
100 %		0	-0.043	-0.045	1717.54322	1726.84469
100 %		10	0.033	0.025	1717.46678	1726.77514
100 %		30	0.042	0.037	1717.45815	1726.76262
100 %		40	0.041	0.024	1717.45909	1726.77616
100 %		50	-0.039	0.033	1717.53853	1726.76699
Batt. Endpoint	3.300	20	0.019	0.037	1717.48055	1726.76349

▣ PCC Channel: 132599
▣ PCC Frequency: 1772.7 MHz
▣ PCC BandWidth: 5 MHz
▣ SCC Channel: 132647
▣ SCC Frequency: 1777.5 MHz
▣ SCC BandWidth: 5 MHz
▣ Voltage : 3.880 VDC
▣ LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (°C)	PPM		Frequency Error (MHz)	
			PCC	SCC	PCC	SCC
100 %	3.880	+20(Ref)	0.026	-0.040	1772.67422	1777.53968
100 %		-30	0.044	0.042	1772.65563	1777.45767
100 %		-20	0.029	0.034	1772.67115	1777.46627
100 %		-10	-0.039	-0.041	1772.73884	1777.54070
100 %		0	0.028	-0.031	1772.67238	1777.53088
100 %		10	-0.043	0.037	1772.74278	1777.46332
100 %		30	0.026	-0.033	1772.67356	1777.53310
100 %		40	-0.035	0.041	1772.73506	1777.45950
100 %		50	-0.042	0.036	1772.74167	1777.46400
Batt. Endpoint	3.300	20	0.025	-0.052	1772.67540	1777.55202

▣ PCC Channel: 132572
▣ PCC Frequency: 1770.0 MHz
▣ PCC BandWidth: 10 MHz
▣ SCC Channel: 132644
▣ SCC Frequency: 1777.2 MHz
▣ SCC BandWidth: 5 MHz
▣ Voltage : 3.880 VDC
▣ LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	PPM		Frequency Error (MHz)	
			PCC	SCC	PCC	SCC
100 %	3.880	+20(Ref)	0.038	-0.030	1769.96178	1777.22964
100 %		-30	0.030	-0.047	1769.96975	1777.24732
100 %		-20	-0.050	0.036	1770.05018	1777.16357
100 %		-10	0.031	-0.050	1769.96890	1777.25049
100 %		0	-0.042	-0.053	1770.04190	1777.25338
100 %		10	0.028	-0.047	1769.97232	1777.24747
100 %		30	0.037	0.032	1769.96318	1777.16758
100 %		40	0.023	0.032	1769.97706	1777.16830
100 %		50	-0.040	-0.055	1770.03952	1777.25543
Batt. Endpoint	3.300	20	-0.047	0.025	1770.04654	1777.17459

▣ PCC Channel: 132549
▣ PCC Frequency: 1767.7 MHz
▣ PCC BandWidth: 15 MHz
▣ SCC Channel: 132642
▣ SCC Frequency: 1777.0 MHz
▣ SCC BandWidth: 5 MHz
▣ Voltage : 3.880 VDC
▣ LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (°C)	PPM		Frequency Error (MHz)	
			PCC	SCC	PCC	SCC
100 %	3.880	+20(Ref)	0.031	0.036	1767.66923	1776.96410
100 %		-30	-0.042	0.028	1767.74158	1776.97244
100 %		-20	0.033	-0.044	1767.66734	1777.04433
100 %		-10	-0.043	0.027	1767.74262	1776.97278
100 %		0	-0.035	0.031	1767.73545	1776.96932
100 %		10	-0.041	-0.043	1767.74126	1777.04252
100 %		30	-0.034	-0.045	1767.73393	1777.04511
100 %		40	-0.045	0.030	1767.74543	1776.97033
100 %		50	-0.053	0.046	1767.75350	1776.95398
Batt. Endpoint	3.300	20	0.038	-0.044	1767.66234	1777.04429

8.6 Radiated Spurious Emissions

▣ PCC Channel : 131997 (1712.5 MHz)

▣ PCC BW(MHz) : 5

▣ PCC RB/ RB Offset : 1/ 24

▣ SCC Channel : 132045 (1717.3 MHz)

▣ SCC BW(MHz) : 5

▣ SCC RB/ RB Offset : 1/ 0

▣ DISTANCE: 3 meters

▣ LIMIT: -13.0 dBm

Freq.(MHz)	Measured Level [dBm]	Ant. Gain (dBi)	Substitute Level [dBm]	C.L	Pol.	Result (dBm)
3 429.80	-46.00	12.42	-52.45	3.09	V	-43.12
5 144.70	-58.09	12.37	-55.71	3.88	H	-47.22
6 859.60	-59.93	11.87	-53.04	4.49	H	-45.66

▣ PCC Channel : 132353 (1748.1 MHz)

▣ PCC BW(MHz) : 5

▣ PCC RB/ RB Offset : 1/ 24

▣ SCC Channel : 132446 (1757.4 MHz)

▣ SCC BW(MHz) : 15

▣ SCC RB/ RB Offset : 1/ 0

▣ DISTANCE: 3 meters

▣ LIMIT: -13.0 dBm

Freq.(MHz)	Measured Level [dBm]	Ant. Gain (dBi)	Substitute Level [dBm]	C.L	Pol.	Result (dBm)
3 505.50	-40.99	12.34	-47.21	3.11	H	-37.98
5 258.25	-55.67	12.99	-55.35	3.83	H	-46.19
7 011.00	-57.16	11.26	-49.18	4.56	V	-42.48

▣ PCC Channel : 132504 (1763.2 MHz)

▣ PCC BW(MHz) : 5

▣ PCC RB/ RB Offset : 1/ 24

▣ SCC Channel : 132597 (1772.5 MHz)

▣ SCC BW(MHz) : 15

▣ SCC RB/ RB Offset : 1/ 0

▣ DISTANCE: 3 meters

▣ LIMIT: -13.0 dBm

Freq.(MHz)	Measured Level [dBm]	Ant. Gain (dBi)	Substitute Level [dBm]	C.L	Pol.	Result (dBm)
3 535.70	-40.35	12.34	-46.40	3.17	V	-37.23
5 303.55	-57.53	13.07	-56.76	3.95	V	-47.64
7 071.40	-59.86	10.97	-51.02	4.55	H	-44.60

8.7 Occupied Bandwidth

PCC					SCC					Data (MHz)
BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	
5	132398	1752.6	QPSK	25/ 0	5	132446	1757.4	QPSK	25/ 0	9.2937
5	132375	1750.3	QPSK	25/ 0	10	132447	1757.5	QPSK	50/ 0	13.891
10	132397	1752.5	QPSK	50/ 0	5	132469	1759.7	QPSK	25/ 0	13.911
5	132353	1748.1	QPSK	25/ 0	15	132446	1757.4	QPSK	75/ 0	18.322
15	132398	1752.6	QPSK	75/ 0	5	132491	1761.9	QPSK	25/ 0	18.237
10	132373	1750.1	QPSK	50/ 0	10	132472	1760.0	QPSK	50/ 0	18.790

PCC					SCC					Data (MHz)
BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	
5	132398	1752.6	16QAM	25/ 0	5	132446	1757.4	16QAM	25/ 0	9.3127
5	132375	1750.3	16QAM	25/ 0	10	132447	1757.5	16QAM	50/ 0	13.925
10	132397	1752.5	16QAM	50/ 0	5	132469	1759.7	16QAM	25/ 0	13.951
5	132353	1748.1	16QAM	25/ 0	15	132446	1757.4	16QAM	75/ 0	18.198
15	132398	1752.6	16QAM	75/ 0	5	132491	1761.9	16QAM	25/ 0	18.305
10	132373	1750.1	16QAM	50/ 0	10	132472	1760.0	16QAM	50/ 0	18.790

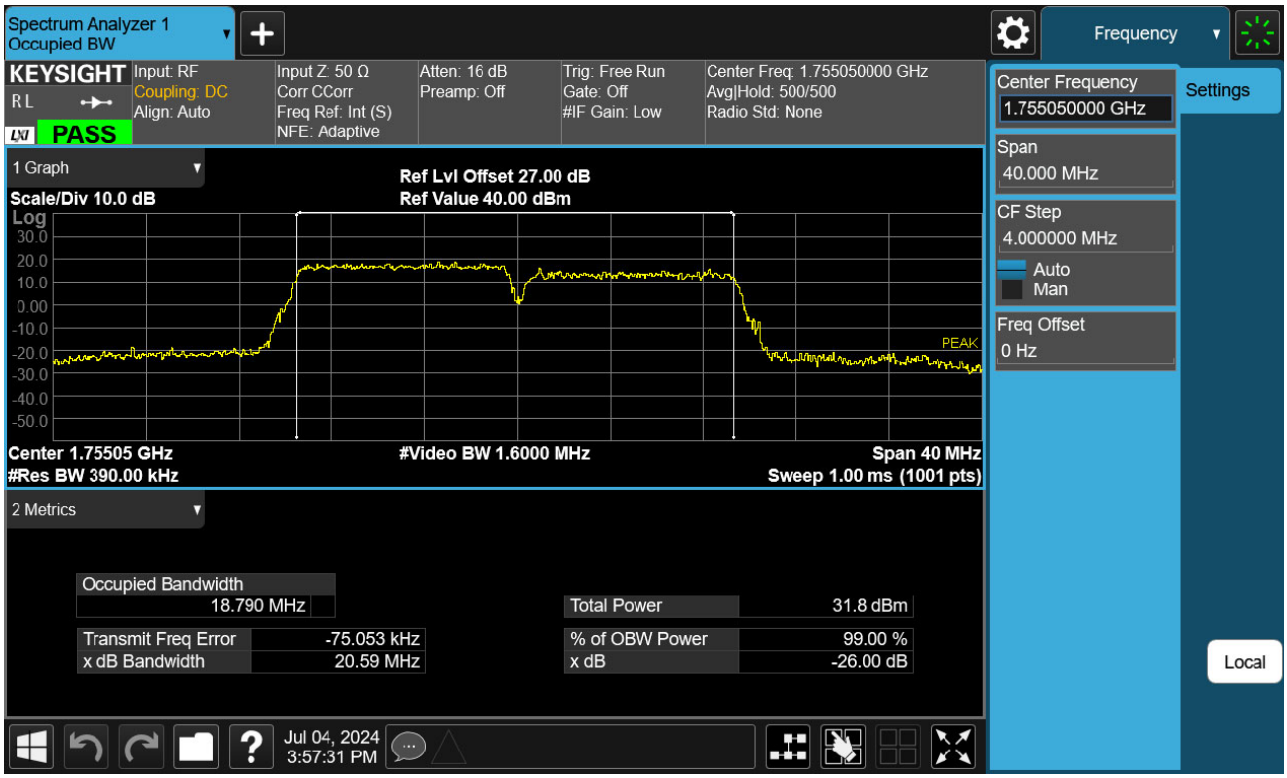
PCC					SCC					Data (MHz)
BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	
5	132398	1752.6	64QAM	25/ 0	5	132446	1757.4	64QAM	25/ 0	9.2974
5	132375	1750.3	64QAM	25/ 0	10	132447	1757.5	64QAM	50/ 0	13.842
10	132397	1752.5	64QAM	50/ 0	5	132469	1759.7	64QAM	25/ 0	13.900
5	132353	1748.1	64QAM	25/ 0	15	132446	1757.4	64QAM	75/ 0	18.204
15	132398	1752.6	64QAM	75/ 0	5	132491	1761.9	64QAM	25/ 0	18.267
10	132373	1750.1	64QAM	50/ 0	10	132472	1760.0	64QAM	50/ 0	18.843

PCC					SCC					Data (MHz)
BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	
5	132398	1752.6	256QAM	25/ 0	5	132446	1757.4	256QAM	25/ 0	9.2704
5	132375	1750.3	256QAM	25/ 0	10	132447	1757.5	256QAM	50/ 0	13.910
10	132397	1752.5	256QAM	50/ 0	5	132469	1759.7	256QAM	25/ 0	13.892
5	132353	1748.1	256QAM	25/ 0	15	132446	1757.4	256QAM	75/ 0	18.164
15	132398	1752.6	256QAM	75/ 0	5	132491	1761.9	256QAM	25/ 0	18.263
10	132373	1750.1	256QAM	50/ 0	10	132472	1760.0	256QAM	50/ 0	18.802

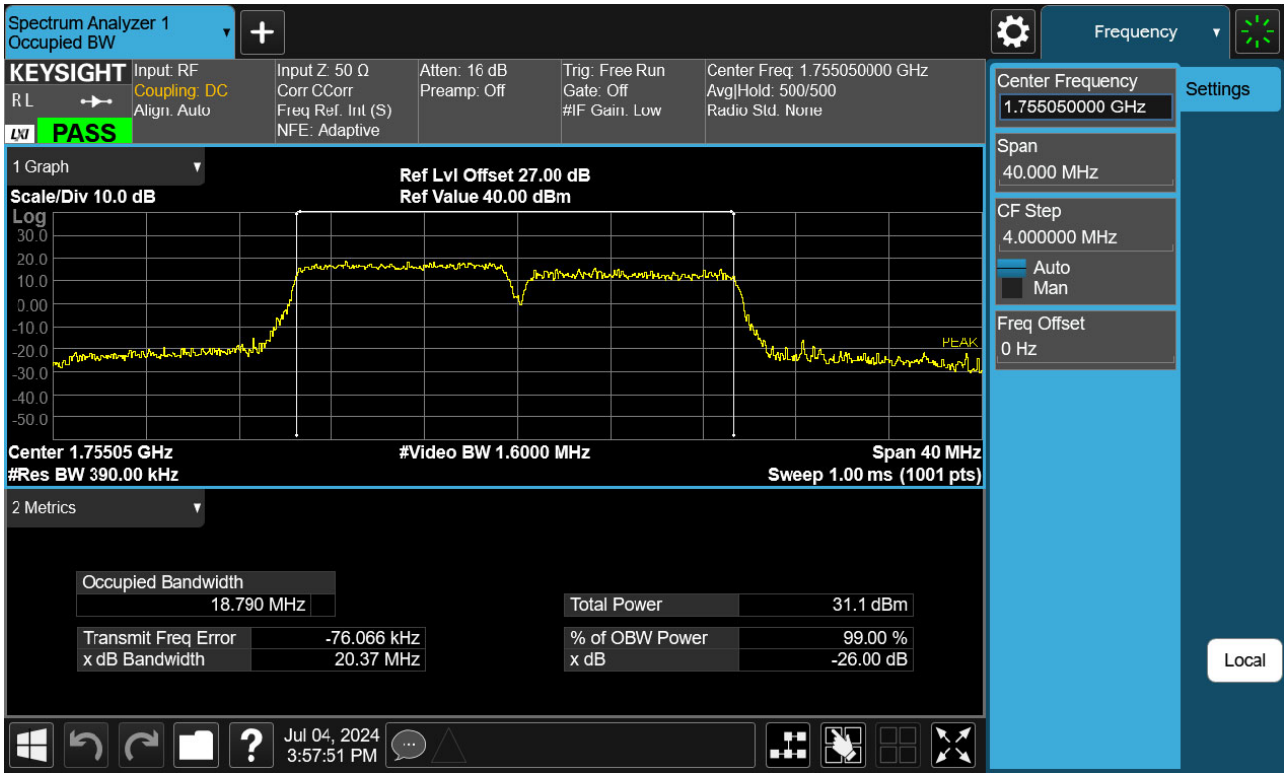
Note:

In order to simplify the report, attached plots were only widest bandwidth(10+10).

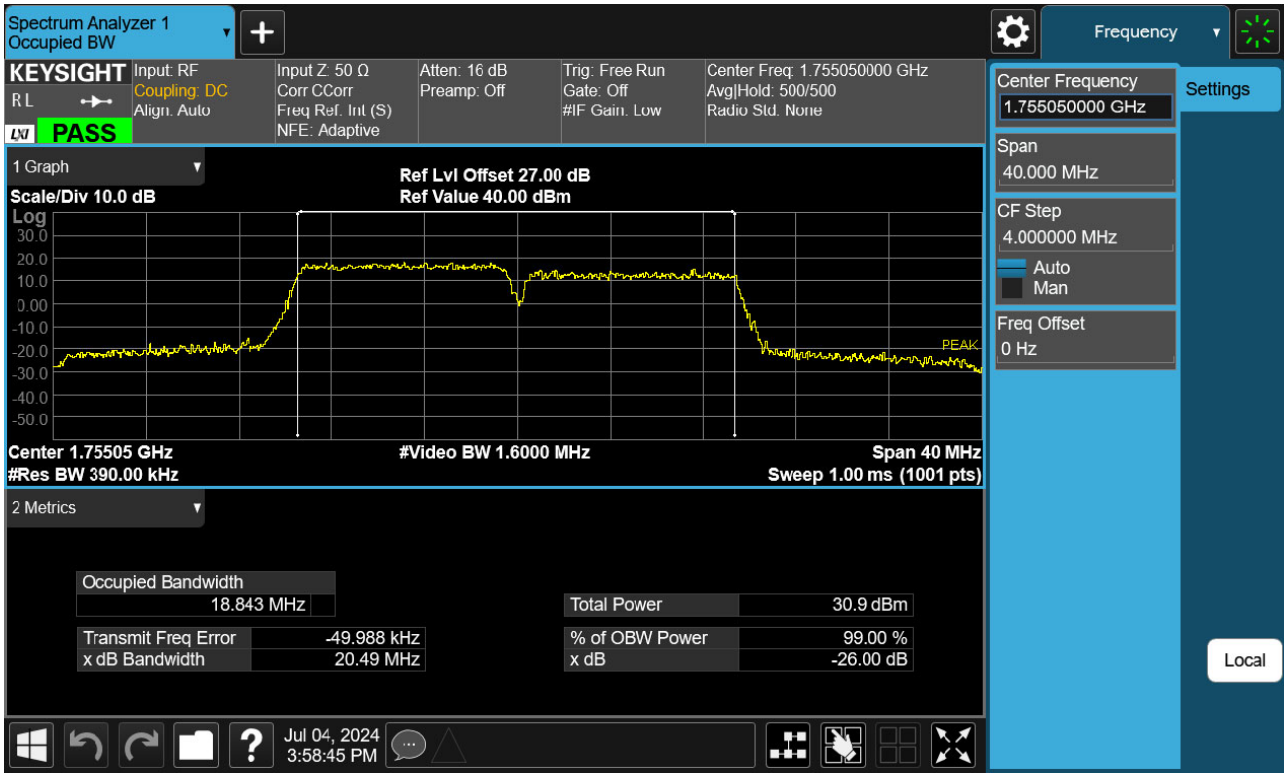
PCC 10 MHz Ch132373 RB50 Offset0, SCC 10 MHz Ch132472 RB50 Offset0_(QPSK)



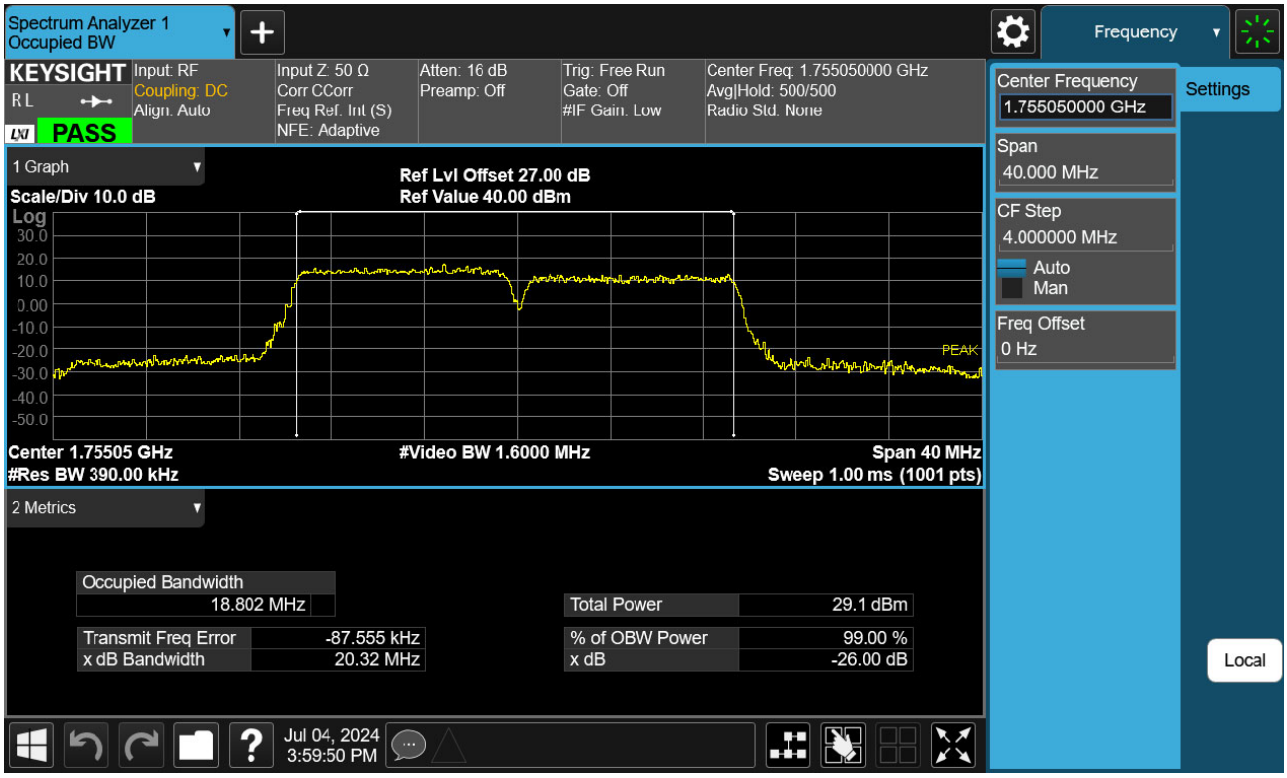
PCC 10 MHz Ch132373 RB50 Offset0, SCC 10 MHz Ch132472 RB50 Offset0_(16QAM)



PCC 10 MHz Ch132373 RB50 Offset0, SCC 10 MHz Ch132472 RB50 Offset0_(64QAM)



PCC 10 MHz Ch132373 RB50 Offset0, SCC 10 MHz Ch132472 RB50 Offset0_(256QAM)



8.8 Peak- to- Average Ratio

PCC					SCC					Data (dBm)
BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	
5	132398	1752.6	QPSK	25/ 0	5	132446	1757.4	QPSK	25/ 0	6.18
5	132375	1750.3	QPSK	25/ 0	10	132447	1757.5	QPSK	50/ 0	6.37
10	132397	1752.5	QPSK	50/ 0	5	132469	1759.7	QPSK	25/ 0	6.32
5	132353	1748.1	QPSK	25/ 0	15	132446	1757.4	QPSK	75/ 0	6.23
15	132398	1752.6	QPSK	75/ 0	5	132491	1761.9	QPSK	25/ 0	6.27
10	132373	1750.1	QPSK	50/ 0	10	132472	1760.0	QPSK	50/ 0	6.89

PCC					SCC					Data (dBm)
BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	
5	132398	1752.6	16QAM	25/ 0	5	132446	1757.4	16QAM	25/ 0	6.84
5	132375	1750.3	16QAM	25/ 0	10	132447	1757.5	16QAM	50/ 0	6.97
10	132397	1752.5	16QAM	50/ 0	5	132469	1759.7	16QAM	25/ 0	6.81
5	132353	1748.1	16QAM	25/ 0	15	132446	1757.4	16QAM	75/ 0	6.78
15	132398	1752.6	16QAM	75/ 0	5	132491	1761.9	16QAM	25/ 0	6.77
10	132373	1750.1	16QAM	50/ 0	10	132472	1760.0	16QAM	50/ 0	7.48

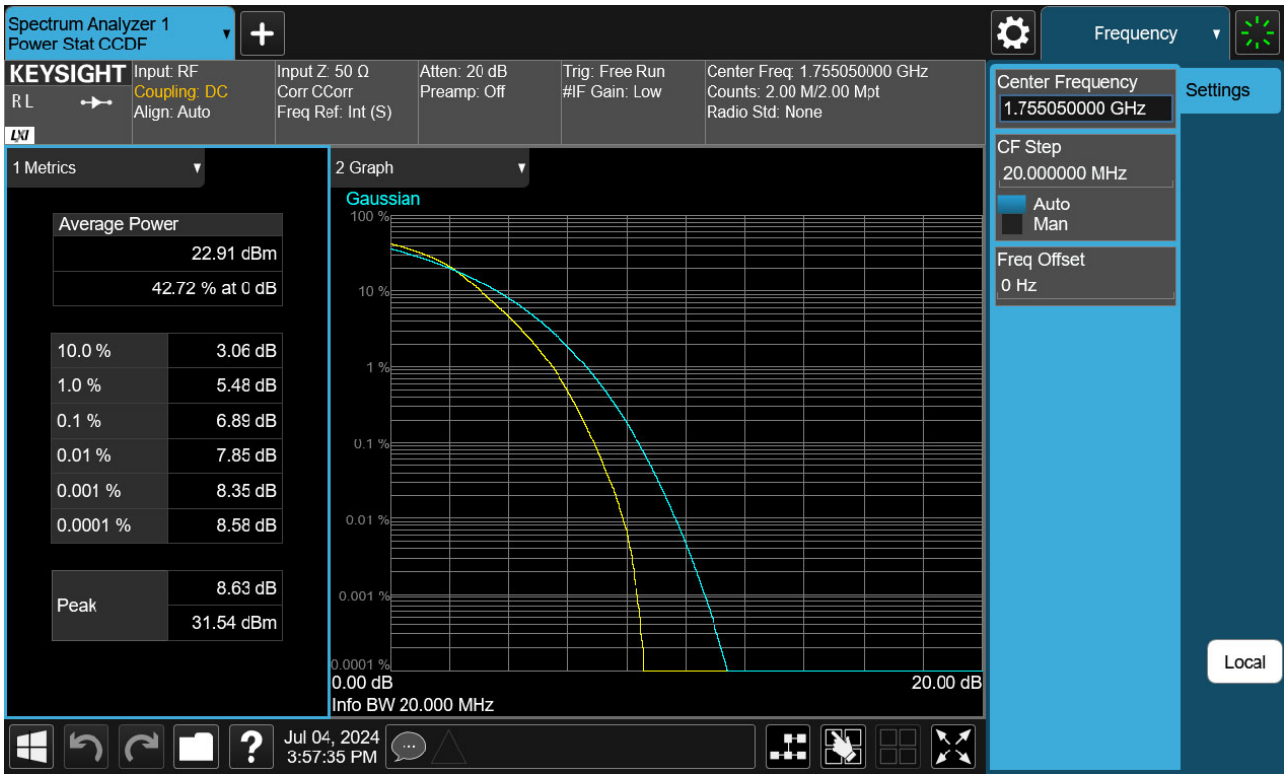
PCC					SCC					Data (dBm)
BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	
5	132398	1752.6	64QAM	25/ 0	5	132446	1757.4	64QAM	25/ 0	7.62
5	132375	1750.3	64QAM	25/ 0	10	132447	1757.5	64QAM	50/ 0	7.03
10	132397	1752.5	64QAM	50/ 0	5	132469	1759.7	64QAM	25/ 0	6.87
5	132353	1748.1	64QAM	25/ 0	15	132446	1757.4	64QAM	75/ 0	6.85
15	132398	1752.6	64QAM	75/ 0	5	132491	1761.9	64QAM	25/ 0	6.87
10	132373	1750.1	64QAM	50/ 0	10	132472	1760.0	64QAM	50/ 0	7.76

PCC					SCC					Data (dBm)
BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	
5	132398	1752.6	256QAM	25/ 0	5	132446	1757.4	256QAM	25/ 0	8.04
5	132375	1750.3	256QAM	25/ 0	10	132447	1757.5	256QAM	50/ 0	7.02
10	132397	1752.5	256QAM	50/ 0	5	132469	1759.7	256QAM	25/ 0	7.06
5	132353	1748.1	256QAM	25/ 0	15	132446	1757.4	256QAM	75/ 0	7.00
15	132398	1752.6	256QAM	75/ 0	5	132491	1761.9	256QAM	25/ 0	7.03
10	132373	1750.1	256QAM	50/ 0	10	132472	1760.0	256QAM	50/ 0	8.08

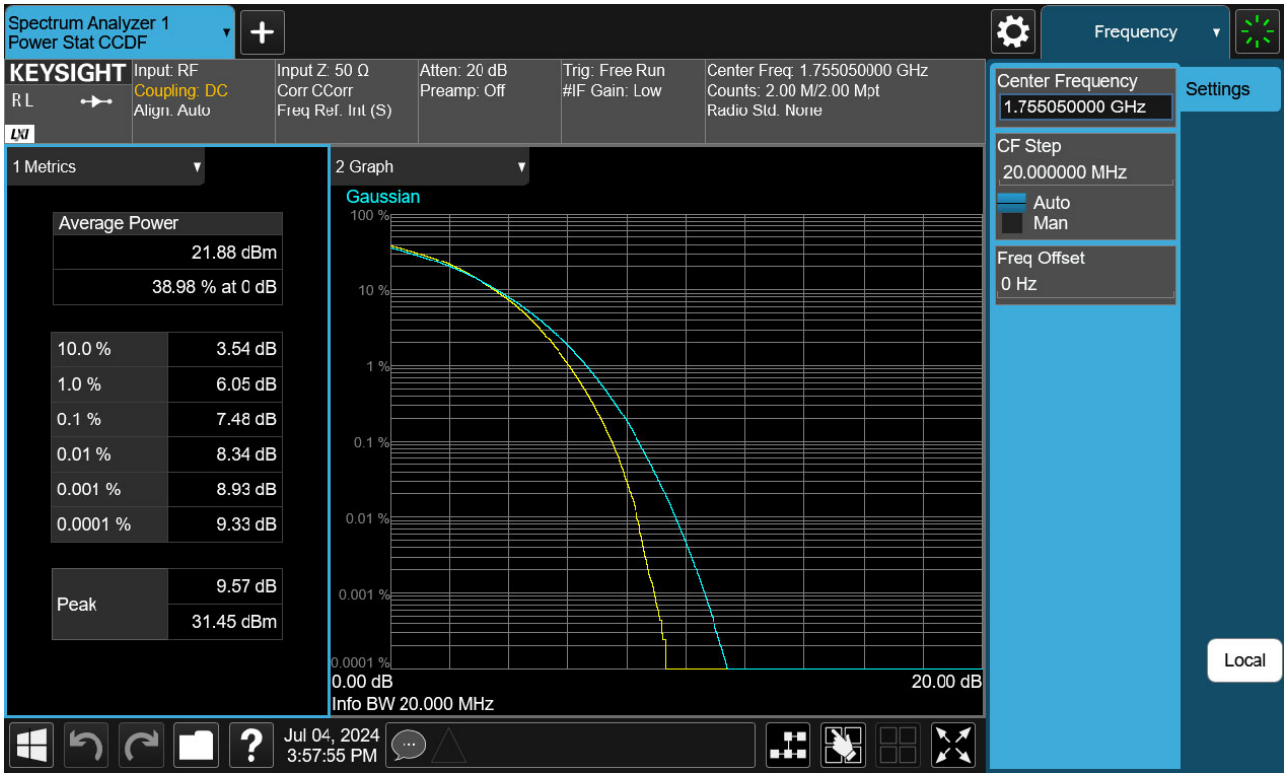
Note:

In order to simplify the report, attached plots were only widest bandwidth(10+10).

PCC 10 MHz Ch132373 RB50 Offset0, SCC 10 MHz Ch132472 RB50 Offset0_(QPSK)

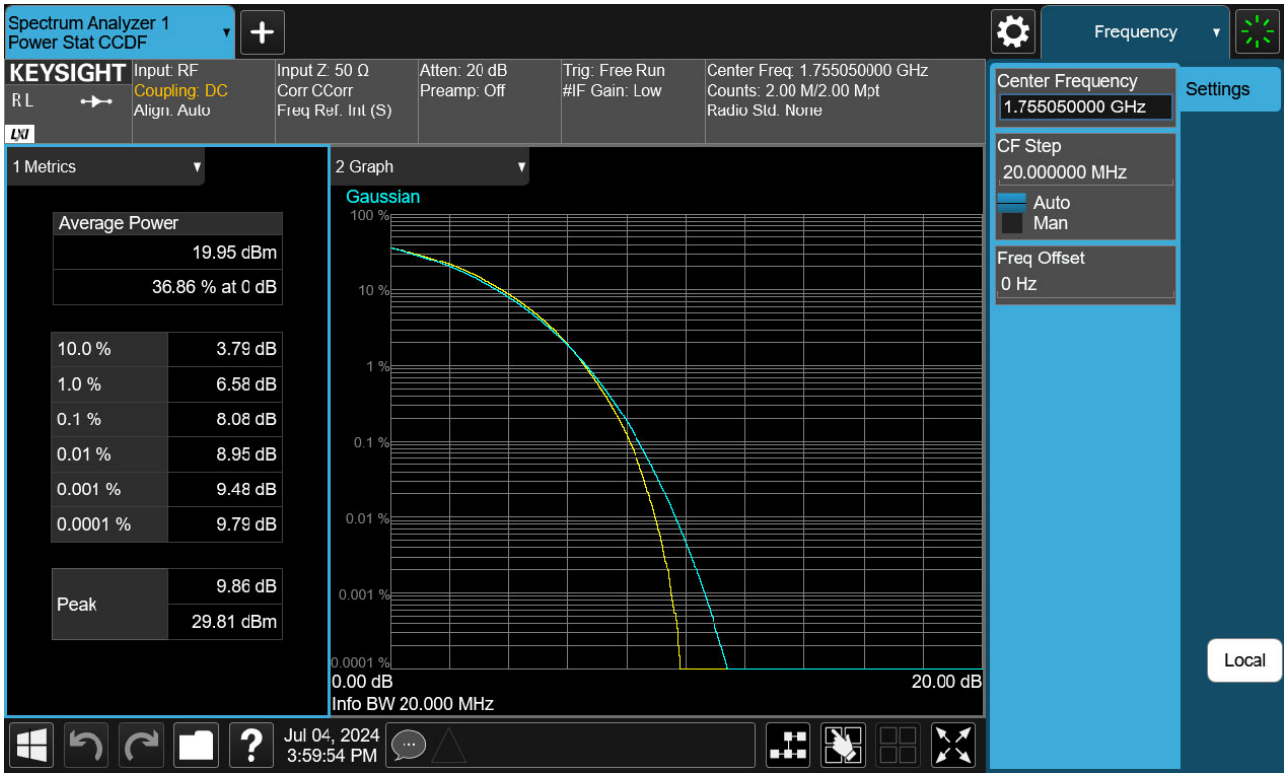


PCC 10 MHz Ch132373 RB50 Offset0, SCC 10 MHz Ch132472 RB50 Offset0_(16QAM)



PCC 10 MHz Ch132373 RB50 Offset0, SCC 10 MHz Ch132472 RB50 Offset0_(64QAM)

PCC 10 MHz Ch132373 RB50 Offset0, SCC 10 MHz Ch132472 RB50 Offset0_(256QAM)



9. TEST DATA(Sub 5 Ant)

Test Overview

The EUT is set up to transmit two contiguous LTE channels. The power level of both carriers and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

Test Note

1. All tests were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth.
2. Channel bandwidth is shown in the tables below based only on the channel bandwidths that were supported in this device.

Channel Bandwidth (PCC)	Channel Bandwidth (SCC)	Maximum aggregated bandwidth (MHz)
5	5	10
5	10	15
10	5	15
5	15	20
15	5	20
10	10	20

3. All modes of operation were investigated and the worst case configuration results are reported in this section.
   Please refer to the table below.
 - Worst case(Conducted Spurious Emissions, Band Edge)
   : We have selected higher of the Conduction Output Power.
 - Worst case(Radiated Spurious Emissions) : We have selected higher of the EIRP.
 - Worst case(OBW, PAR, Frequency stability)
   : All modes of operation were investigated and the worst case configuration results are reported.
4. All modes of operation were investigated and the worst case configuration results are reported.
   Mode: SA Only
   Mode : Stand alone, Stand alone + External accessories (Earphone, AC adapter, etc)
   Worst case : Stand alone5. We were performed the RSE test in condition of co-location.
   Mode : Stand alone, Simultaneous transmission scenarios
   Worst case : Stand alone
5. All simultaneous transmission scenarios of operation were investigated, and the test results showed no additional significant emissions relative to the least restrictive limit were observed.
   Therefore, only the worst case(stand-alone) results were reported
6. All 3 channels(low/mid/high) of conducted power and radiated power were investigated and the worst case channel results are reported.

[Worst case]

Test Description	Mod	Operating frequency	PCC					SCC				
			BW (MHz)	Freq. (MHz)	Ch.	RB	RB Offset	BW (MHz)	Freq. (MHz)	Ch.	RB	RB Offset
Conducted Spurious Emissions/ Band Edge	QPSK	Low	5	1712.5	131997	1	24	5	1717.3	132045	1	0
		Mid	10	1752.5	132397	1	49	5	1759.7	132469	1	0
		High	5	1763.2	132504	1	24	15	1772.5	132597	1	0
		Low	5	1712.5	131997	1	0	5	1717.3	132045	1	24
		Mid	10	1752.5	132397	1	0	5	1759.7	132469	1	24
		High	5	1763.2	132504	1	0	15	1772.5	132597	1	74
		Low	10	1715.0	132022	50	0	10	1724.9	132121	50	0
		Mid	5	1750.3	132375	25	0	10	1757.5	132447	50	0
		High	5	1772.7	132599	25	0	5	1777.5	132647	25	0
		Low	10	1750.1	132373	50	0	10	1760.0	132472	50	0
		High	10	1765.1	132523	50	0	10	1775.0	132622	50	0
Radiated Spurious Emissions	QPSK	Low	10	1715.0	132022	1	49	10	1724.9	132121	1	0
		Mid	5	1748.1	132353	1	24	15	1757.4	132446	1	0
		High	10	1765.1	132523	1	49	10	1775.0	132622	1	0

[Worst case]

Test Description	Mod	Operating frequency	PCC					SCC				
			BW (MHz)	Freq. (MHz)	Ch.	RB	RB Offset	BW (MHz)	Freq. (MHz)	Ch.	RB	RB Offset
OBW, PAR	QPSK, 16QAM, 64QAM 256QAM	Mid	5	1752.6	132398	25	0	5	1757.4	132446	25	0
			5	1750.3	132375	25	0	10	1757.5	132447	50	0
			10	1752.5	132397	50	0	5	1759.7	132469	25	0
			5	1748.1	132353	25	0	15	1757.4	132446	75	0
			15	1752.6	132398	75	0	5	1761.9	132491	25	0
			10	1750.1	132373	50	0	10	1760.0	132472	50	0
Frequency stability	QPSK	Low	5	1712.5	131997	25	0	5	1717.3	132045	25	0
			10	1715.0	132022	50	0	5	1722.2	132094	25	0
			15	1717.5	132047	75	0	5	1726.8	132140	25	0
		High	5	1772.7	132599	25	0	5	1777.5	132647	25	0
			10	1770.0	132572	50	0	5	1777.2	132644	25	0
			15	1767.7	132549	75	0	5	1777.0	132642	25	0

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9.1 Conducted Power

Operating frequency	PCC					SCC					Conducted. Power [dBm]
	Bandwidth [MHz]	Freq. (MHz)	Channel	RB	RB Offset	Bandwidth [MHz]	Freq. (MHz)	Channel	RB	RB Offset	
Low	***5***	***1712.5***	***131997***	***1***	***24***	***5***	***1717.3***	***132045***	***1***	***0***	***22.74***
	5	1712.8	132000	1	24	10	1720.0	132072	1	0	22.72
	10	1715.0	132022	1	49	5	1722.2	132094	1	0	22.72
	5	1713.0	132002	1	24	15	1722.3	132095	1	0	22.68
	15	1717.5	132047	1	74	5	1726.8	132140	1	0	22.63
	10	1715.0	132022	1	49	10	1724.9	132121	1	0	22.69
Mid	5	1752.6	132398	1	24	5	1757.4	132446	1	0	22.49
	5	1750.3	132375	1	24	10	1757.5	132447	1	0	22.53
	10	***1752.5***	***132397***	***1***	***49***	***5***	***1759.7***	***132469***	***1***	***0***	***22.66***
	5	1748.1	132353	1	24	15	1757.4	132446	1	0	22.48
	15	1752.6	132398	1	74	5	1761.9	132491	1	0	22.52
	10	1750.1	132373	1	49	10	1760.0	132472	1	0	22.66
High	5	1772.7	132599	1	24	5	1777.5	132647	1	0	21.40
	5	1767.8	132550	1	24	10	1775.0	132622	1	0	21.59
	10	1770.0	132572	1	49	5	1777.2	132644	1	0	21.08
	5	***1763.2***	***132504***	***1***	***24***	***15***	***1772.5***	***132597***	***1***	***0***	***22.14***
	15	1767.7	132549	1	74	5	1777.0	132642	1	0	21.11
	10	1765.1	132523	1	49	10	1775.0	132622	1	0	21.47

Note:

Modulation : QPSK(1RB)

Operating frequency	PCC					SCC					Conducted. Power [dBm]
	Bandwidth [MHz]	Freq. (MHz)	Channel	RB	RB Offset	Bandwidth [MHz]	Freq. (MHz)	Channel	RB	RB Offset	
Low	5	1712.5	131997	25	0	5	1717.3	132045	25	0	20.30
	5	1712.8	132000	25	0	10	1720.0	132072	50	0	20.37
	10	1715.0	132022	50	0	5	1722.2	132094	25	0	20.26
	5	1713.0	132002	25	0	15	1722.3	132095	75	0	20.29
	15	1717.5	132047	75	0	5	1726.8	132140	25	0	20.25
	10	***1715.0***	***132022***	***50***	***0***	***10***	***1724.9***	***132121***	***50***	***0***	***20.41***
Mid	5	1752.6	132398	25	0	5	1757.4	132446	25	0	20.21
	5	***1750.3***	***132375***	***25***	***0***	***10***	***1757.5***	***132447***	***50***	***0***	***20.29***
	10	1752.5	132397	50	0	5	1759.7	132469	25	0	20.14
	5	1748.1	132353	25	0	15	1757.4	132446	75	0	20.23
	15	1752.6	132398	75	0	5	1761.9	132491	25	0	20.18
	10	1750.1	132373	50	0	10	1760.0	132472	50	0	20.18
High	***5***	***1772.7***	***132599***	***25***	***0***	***5***	***1777.5***	***132647***	***25***	***0***	***20.52***
	5	1767.8	132550	25	0	10	1775.0	132622	50	0	20.21
	10	1770.0	132572	50	0	5	1777.2	132644	25	0	20.10
	5	1763.2	132504	25	0	15	1772.5	132597	75	0	20.48
	15	1767.7	132549	75	0	5	1777.0	132642	25	0	20.14
	10	1765.1	132523	50	0	10	1775.0	132622	50	0	20.12

Note:

Modulation : QPSK(Full RB)

Operating frequency	PCC					SCC					Conducted. Power [dBm]
	Bandwidth [MHz]	Freq. (MHz)	Channel	RB	RB Offset	Bandwidth [MHz]	Freq. (MHz)	Channel	RB	RB Offset	
Low	5	1712.5	131997	1	24	5	1717.3	132045	1	0	22.42
Mid	10	1752.5	132397	1	49	5	1759.7	132469	1	0	22.12
High	5	1763.2	132504	1	24	15	1772.5	132597	1	0	21.51
Low	10	1715.0	132022	50	0	10	1724.9	132121	50	0	19.61
Mid	5	1750.3	132375	25	0	10	1757.5	132447	50	0	19.50
High	5	1772.7	132599	25	0	5	1777.5	132647	25	0	19.88

Note:

Modulation : 16QAM

Operating frequency	PCC					SCC					Conducted. Power [dBm]
	Bandwidth [MHz]	Freq. (MHz)	Channel	RB	RB Offset	Bandwidth [MHz]	Freq. (MHz)	Channel	RB	RB Offset	
Low	5	1712.5	131997	1	24	5	1717.3	132045	1	0	20.24
Mid	10	1752.5	132397	1	49	5	1759.7	132469	1	0	19.62
High	5	1763.2	132504	1	24	15	1772.5	132597	1	0	19.32
Low	10	1715.0	132022	50	0	10	1724.9	132121	50	0	19.57
Mid	5	1750.3	132375	25	0	10	1757.5	132447	50	0	19.49
High	5	1772.7	132599	25	0	5	1777.5	132647	25	0	19.85

Note:

Modulation : 64QAM

Operating frequency	PCC					SCC					Conducted. Power [dBm]
	Bandwidth [MHz]	Freq. (MHz)	Channel	RB	RB Offset	Bandwidth [MHz]	Freq. (MHz)	Channel	RB	RB Offset	
Low	5	1712.5	131997	1	24	5	1717.3	132045	1	0	18.20
Mid	10	1752.5	132397	1	49	5	1759.7	132469	1	0	18.01
High	5	1763.2	132504	1	24	15	1772.5	132597	1	0	17.89
Low	10	1715.0	132022	50	0	10	1724.9	132121	50	0	17.49
Mid	5	1750.3	132375	25	0	10	1757.5	132447	50	0	17.50
High	5	1772.7	132599	25	0	5	1777.5	132647	25	0	17.83

Note:

Modulation : 256QAM

9.2 Equivalent Isotropic Radiated Power

	PCC			SCC			Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	E.I.R.P	
	BW [MHz]	Channel	RB/ Offset	BW [MHz]	Channel	RB/ Offset						W	dBm
Low	5	131997	1/24	5	132045	1/0	-19.36	14.26	9.98	2.23	H	0.159	22.00
	5	132000	1/24	10	132072	1/0	-19.38	14.24	9.98	2.23	H	0.158	21.98
	10	132022	1/49	5	132094	1/0	-19.31	14.20	10.01	2.22	H	0.158	21.99
	5	132002	1/24	15	132095	1/0	-19.38	14.13	10.01	2.22	H	0.156	21.92
	15	132047	1/74	5	132140	1/0	-19.49	14.02	10.01	2.22	H	0.152	21.81
	10	**132022**	**1/49**	**10**	**132121**	**1/0**	**-19.22**	**14.29**	**10.01**	**2.22**	**H**	**0.161**	**22.08**
Mid	5	132398	1/24	5	132446	1/0	-20.62	13.06	10.18	2.17	H	0.128	21.07
	5	132375	1/24	10	132447	1/0	-20.37	13.31	10.18	2.17	H	0.136	21.32
	10	132397	1/49	5	132469	1/0	-20.38	13.30	10.18	2.17	H	0.135	21.31
	5	**132353**	**1/24**	**15**	**132446**	**1/0**	**-20.20**	**13.51**	**10.17**	**2.15**	**H**	**0.142**	**21.53**
	15	132398	1/74	5	132491	1/0	-20.42	13.23	10.19	2.18	H	0.133	21.24
	10	132373	1/49	10	132472	1/0	-20.46	13.22	10.18	2.17	H	0.133	21.23
High	5	132599	1/24	5	132647	1/0	-20.82	12.83	10.21	2.25	H	0.120	20.79
	5	132550	1/24	10	132622	1/0	-21.11	12.50	10.20	2.23	H	0.111	20.47
	10	132572	1/49	5	132644	1/0	-20.87	12.78	10.21	2.25	H	0.118	20.74
	5	132504	1/24	15	132597	1/0	-20.93	12.68	10.20	2.23	H	0.116	20.65
	15	132549	1/74	5	132642	1/0	-20.97	12.64	10.20	2.23	H	0.115	20.61
	10	**132523**	**1/49**	**10**	**132622**	**1/0**	**-20.74**	**12.87**	**10.20**	**2.23**	**H**	**0.121**	**20.84**

Note:

1. Modulation : QPSK
2. Limit : < 1 Watts

PCC			SCC			Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	E.I.R.P	
BW [MHz]	Channel	RB/ Offset	BW [MHz]	Channel	RB/ Offset						W	dBm
5	131997	1/24	5	132045	1/0	-20.09	13.53	9.98	2.23	H	0.134	21.27
5	132000	1/24	10	132072	1/0	-20.03	13.59	9.98	2.23	H	0.136	21.33
10	132022	1/49	5	132094	1/0	-19.97	13.54	10.01	2.22	H	0.136	21.33
5	132002	1/24	15	132095	1/0	-20.01	13.50	10.01	2.22	H	0.135	21.29
15	132047	1/74	5	132140	1/0	-20.20	13.31	10.01	2.22	H	0.129	21.10
10	132022	1/49	10	132121	1/0	-19.88	13.63	10.01	2.22	H	0.139	21.42
5	132353	1/24	15	132446	1/0	-20.92	12.79	10.17	2.15	H	0.120	20.81
10	132523	1/49	10	132622	1/0	-21.53	12.08	10.20	2.23	H	0.101	20.05

Note:

1. Modulation : 16QAM
2. Limit : < 1 Watts

PCC			SCC			Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	E.I.R.P	
BW [MHz]	Channel	RB/ Offset	BW [MHz]	Channel	RB/ Offset						W	dBm
5	131997	1/24	5	132045	1/0	-22.17	11.45	9.98	2.23	H	0.083	19.19
5	132000	1/24	10	132072	1/0	-22.19	11.43	9.98	2.23	H	0.083	19.17
10	132022	1/49	5	132094	1/0	-22.17	11.34	10.01	2.22	H	0.082	19.13
5	132002	1/24	15	132095	1/0	-22.18	11.33	10.01	2.22	H	0.082	19.12
15	132047	1/74	5	132140	1/0	-22.27	11.24	10.01	2.22	H	0.080	19.03
10	132022	1/49	10	132121	1/0	-22.16	11.35	10.01	2.22	H	0.082	19.14
5	132353	1/24	15	132446	1/0	-23.02	10.69	10.17	2.15	H	0.074	18.71
10	132523	1/49	10	132622	1/0	-23.74	9.87	10.20	2.23	H	0.061	17.84

Note:

1. Modulation : 64QAM
2. Limit : < 1 Watts

PCC			SCC			Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	E.I.R.P	
BW [MHz]	Channel	RB/ Offset	BW [MHz]	Channel	RB/ Offset						W	dBm
5	131997	1/24	5	132045	1/0	-24.44	9.18	9.98	2.23	H	0.049	16.92
5	132000	1/24	10	132072	1/0	-24.26	9.36	9.98	2.23	H	0.051	17.10
10	132022	1/49	5	132094	1/0	-24.15	9.36	10.01	2.22	H	0.052	17.15
5	132002	1/24	15	132095	1/0	-24.31	9.20	10.01	2.22	H	0.050	16.99
15	132047	1/74	5	132140	1/0	-24.48	9.03	10.01	2.22	H	0.048	16.82
10	132022	1/49	10	132121	1/0	-24.18	9.33	10.01	2.22	H	0.052	17.12
5	132353	1/24	15	132446	1/0	-25.22	8.49	10.17	2.15	H	0.045	16.51
10	132523	1/49	10	132622	1/0	-25.77	7.84	10.20	2.23	H	0.038	15.81

Note:

1. Modulation : 256QAM
2. Limit : < 1 Watts

9.3 Conducted Spurious Emissions

Operating frequency	PCC				SCC				Measurement Maximum Frequency (GHz)	Factor (dB)	Measurement Maximum Data (dBm)	Result (dBm)
	BW [MHz]	Ch.	Freq. (MHz)	RB/ Offset	BW [MHz]	Ch.	Freq. (MHz)	RB/ Offset				
Low	5	131997	1712.5	1/24	5	132045	1717.3	1/0	8.2627	28.591	-75.45	-46.86
Mid	10	132397	1752.5	1/49	5	132469	1759.7	1/0	9.9541	28.591	-75.29	-46.70
High	5	132504	1763.2	1/24	15	132597	1772.5	1/0	9.6934	28.591	-76.25	-47.66
Low	5	131997	1712.5	1/0	5	132045	1717.3	1/24	4.0414	27.976	-76.10	-48.13
Mid	10	132397	1752.5	1/0	5	132469	1759.7	1/24	7.1586	28.591	-75.10	-46.51
High	5	132504	1763.2	1/0	15	132597	1772.5	1/74	4.0384	27.976	-74.93	-46.96
Low	10	132022	1715.0	50/0	10	132121	1724.9	50/0	4.0260	27.976	-75.62	-47.64
Mid	5	132375	1750.3	25/0	10	132447	1757.5	50/0	8.5788	28.591	-75.55	-46.96
High	5	132599	1772.7	25/0	5	132647	1777.5	25/0	6.0389	28.591	-75.69	-47.10
Mid	10	132373	1750.1	50/0	10	132472	1760.0	50/0	8.2896	28.591	-75.93	-47.33
High	10	132523	1765.1	50/0	10	132622	1775.0	50/0	9.1840	28.591	-75.02	-46.43

Note:

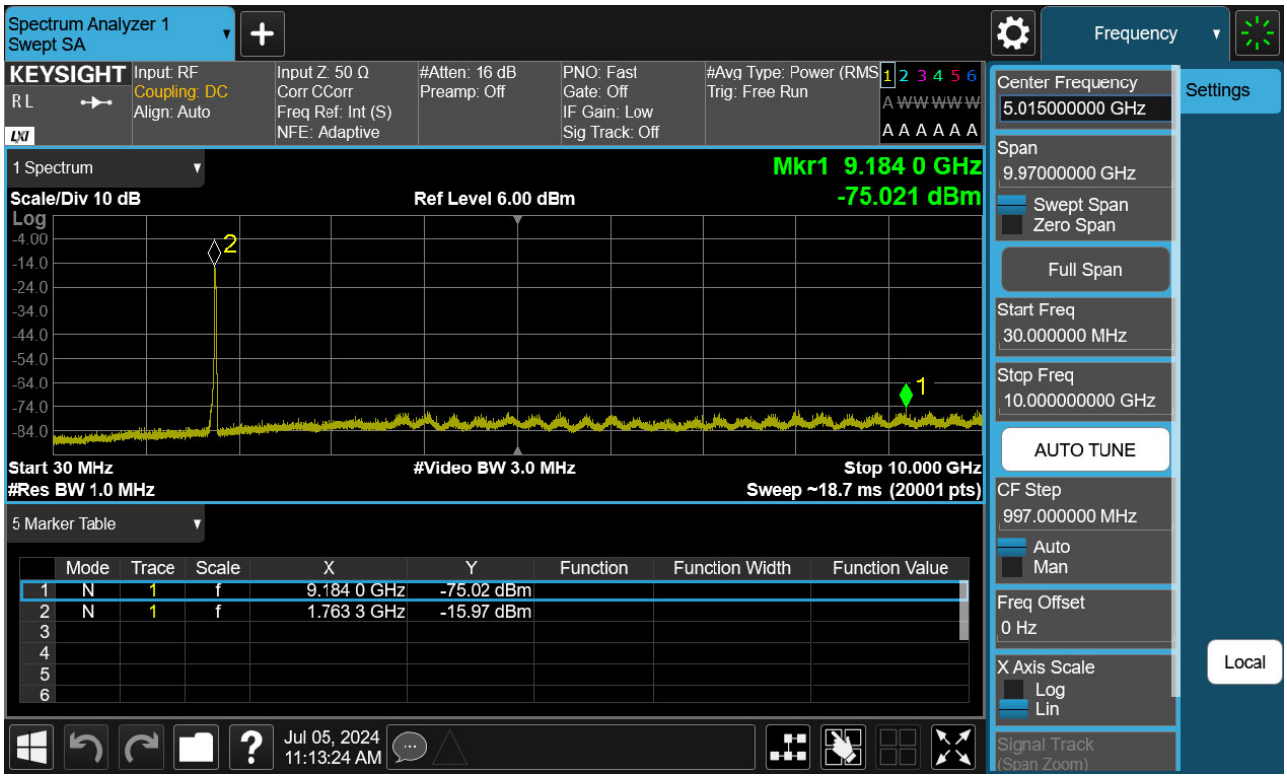
1. Modulation : QPSK
2. Factor(dB) = Cable Loss + Ext. Attenuator + Power Splitter
3. Factors for frequency :

Frequency Range (GHz)	Factor [dB]
0.03 – 1	25.270
1 – 5	27.976
5 – 10	28.591
10 – 15	29.116
15 – 20	29.489
Above 20(26.5)	30.131

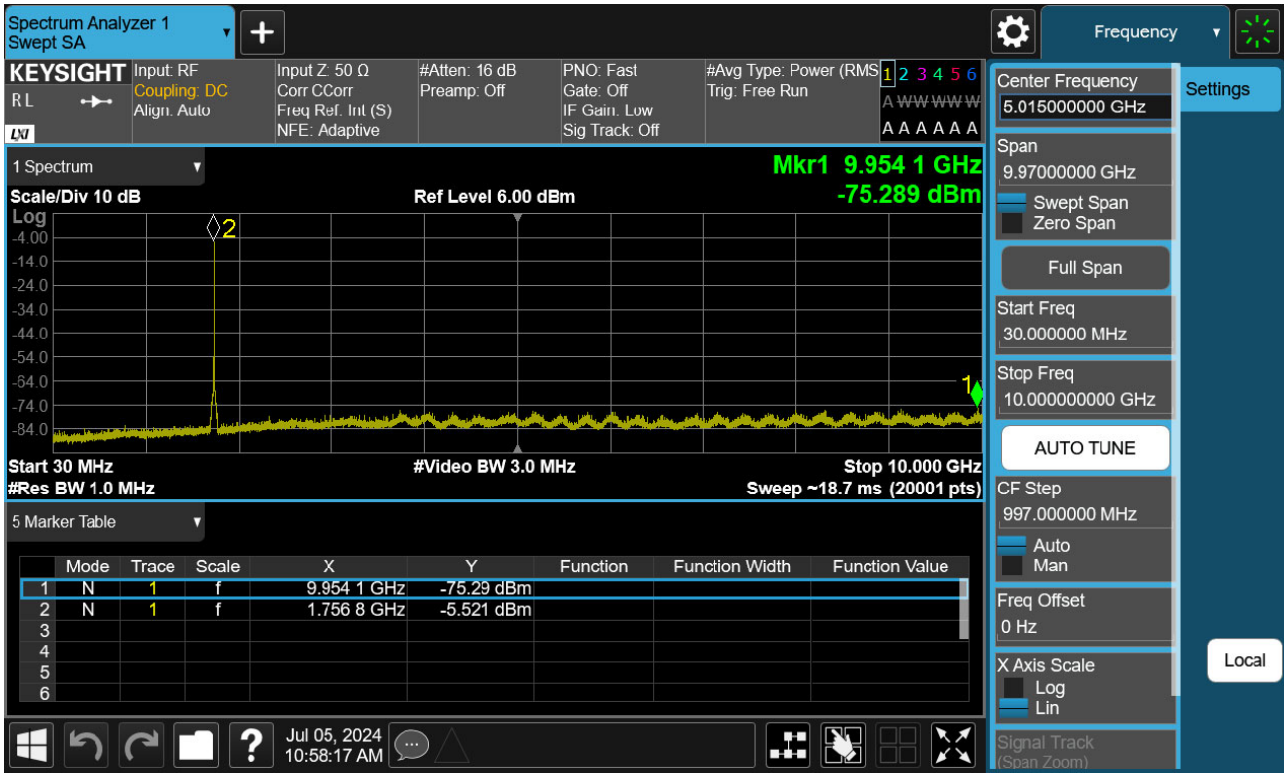
4. Limit : -13.0 dBm

Frequency Range : 30 MHz ~ 10 GHz

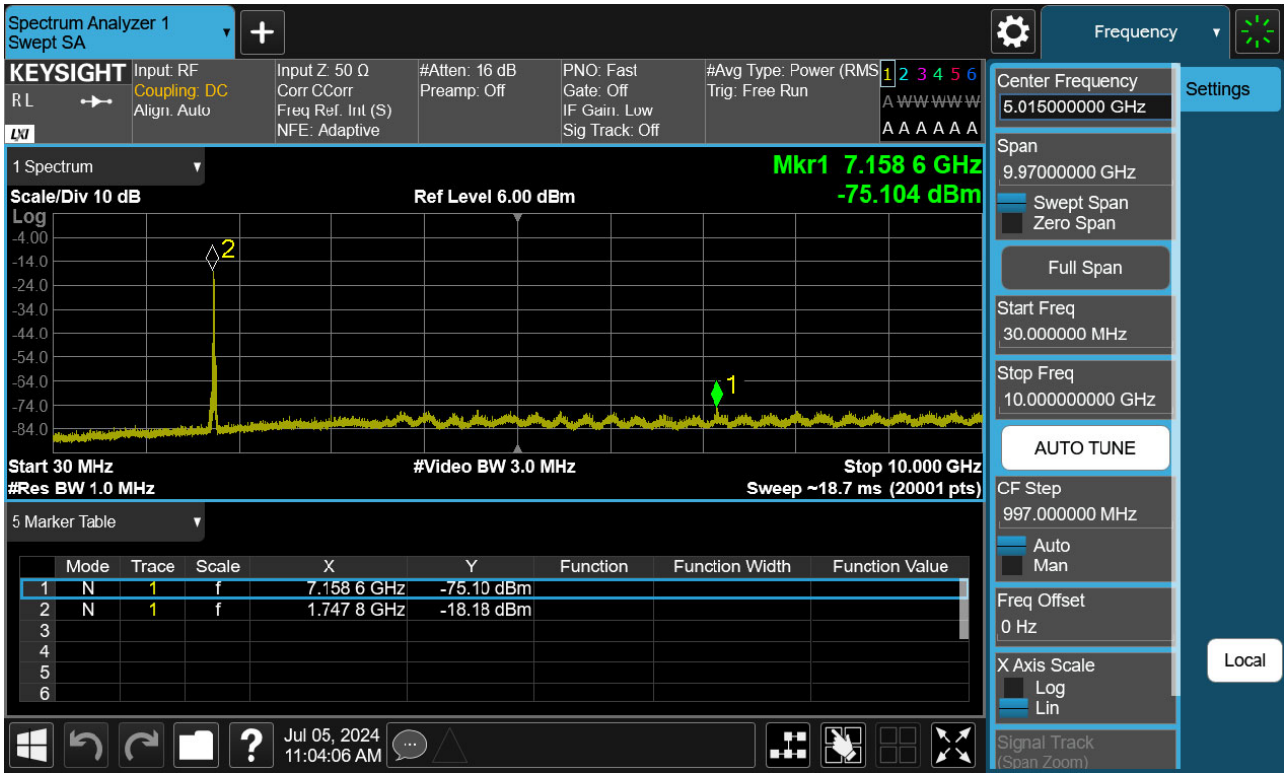
PCC 10MHz Ch132523 RB50 Offset0 SCC 10MHz Ch132622 RB50 Offset0



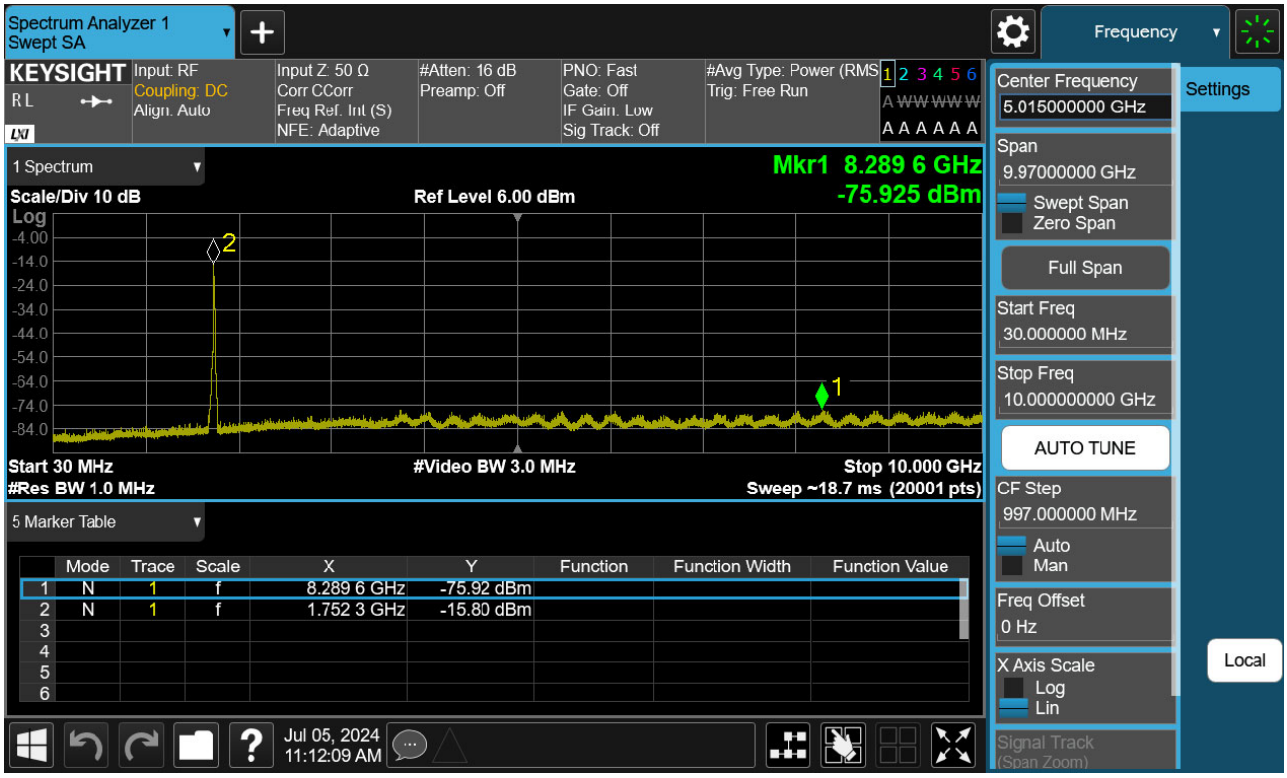
PCC 10MHz Ch132397 RB1 Offset49 SCC 5MHz Ch132469 RB1 Offset0



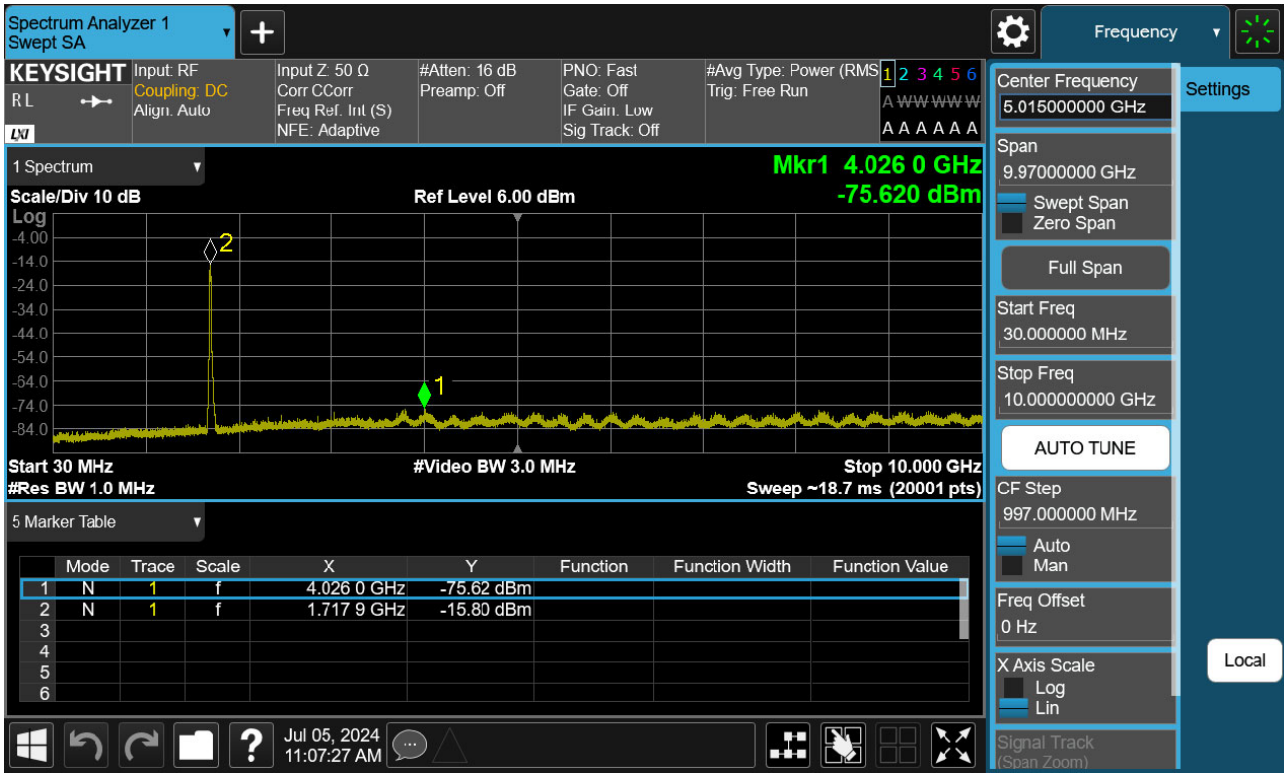
PCC 10MHz Ch132397 RB1 Offset0 SCC 5MHz Ch132469 RB1 Offset24



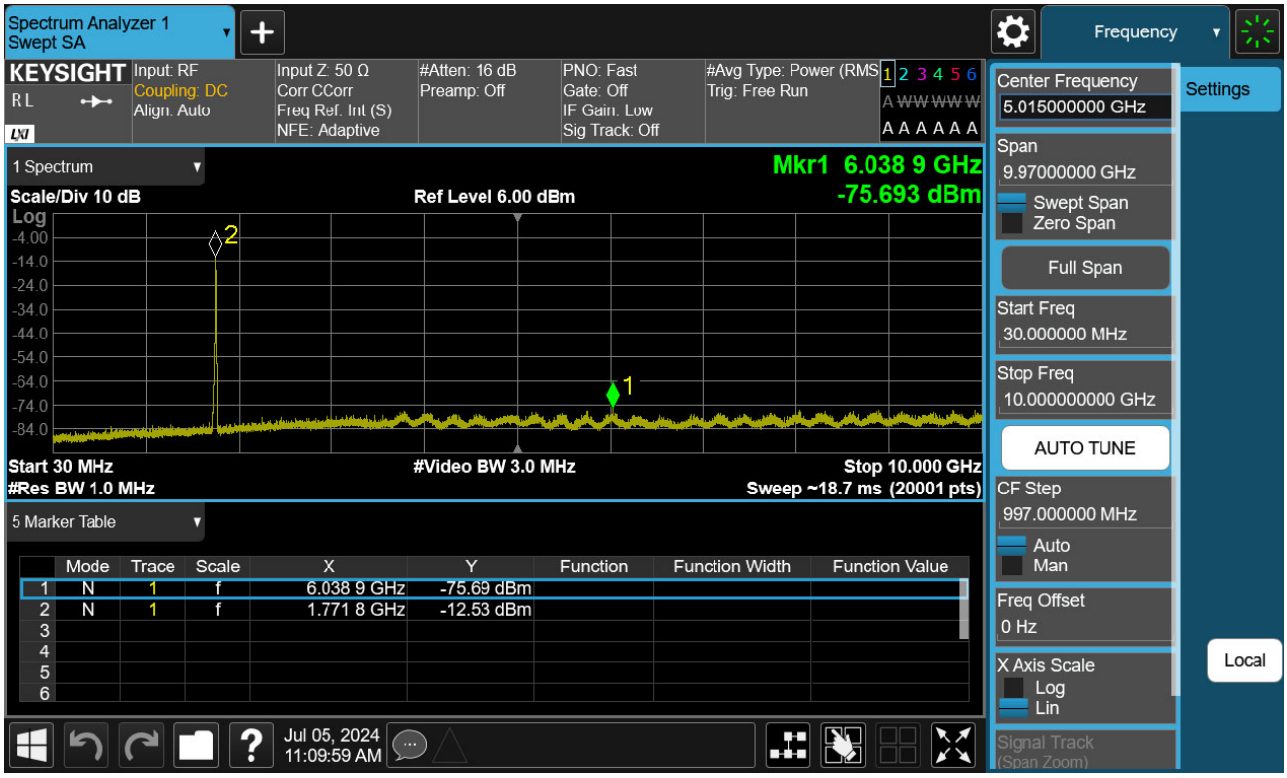
PCC 10MHz Ch132373 RB50 Offset0 SCC 10MHz Ch132472 RB50 Offset0



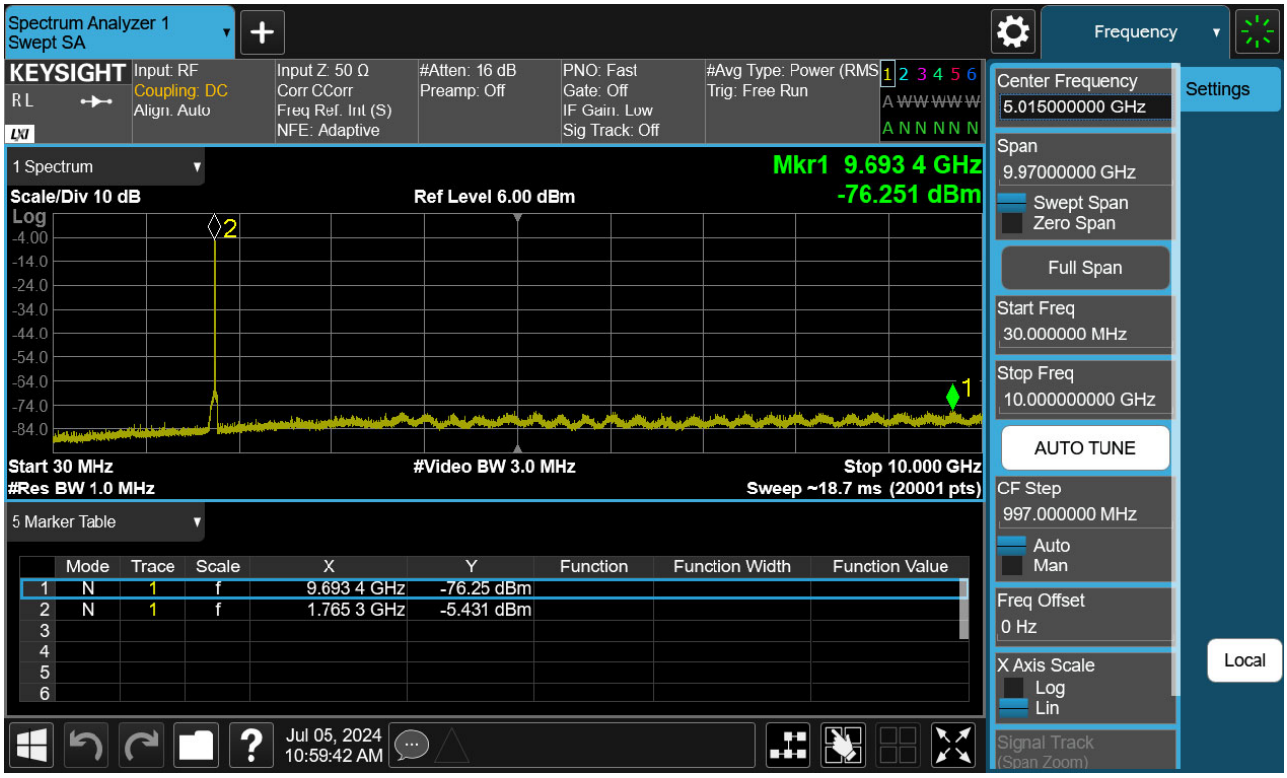
PCC 10MHz Ch132022 RB50 Offset0 SCC 10MHz Ch132121 RB50 Offset0



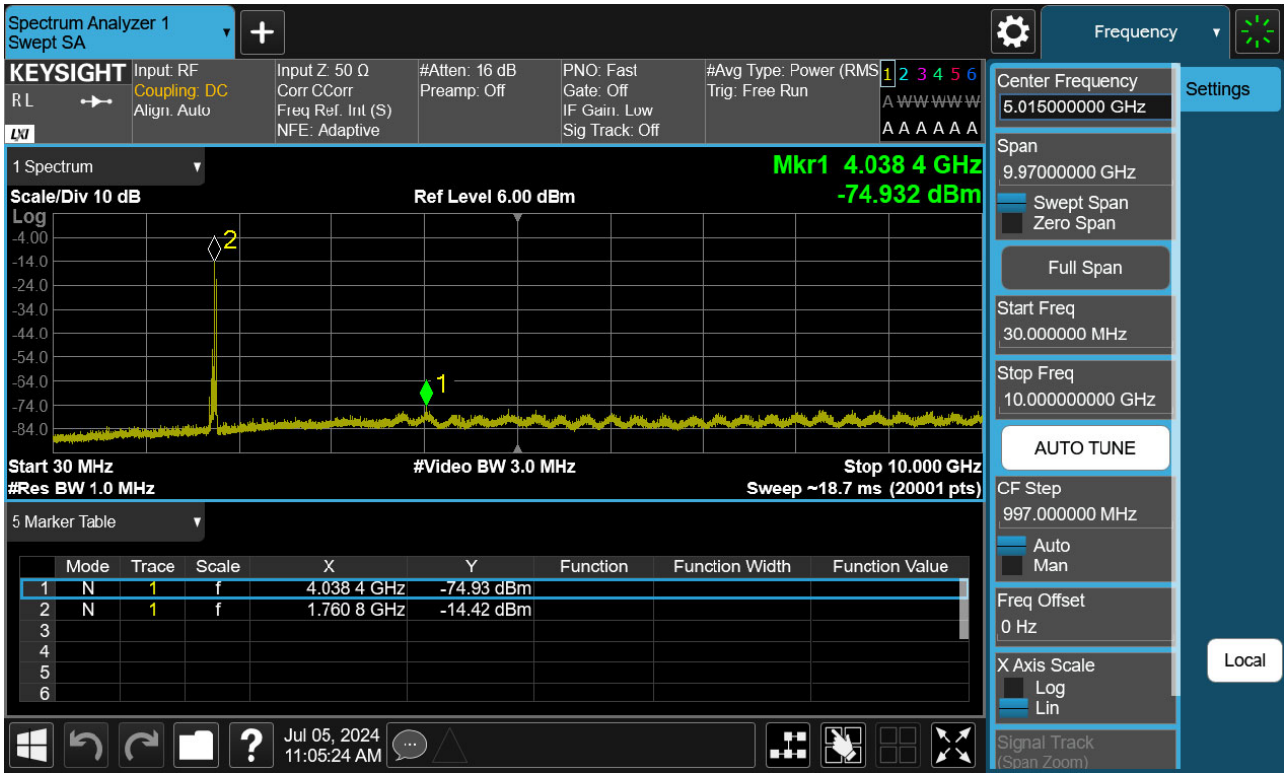
PCC 5MHz Ch132599 RB25 Offset0 SCC 5MHz Ch132647 RB25 Offset0



PCC 5MHz Ch132504 RB1 Offset24 SCC 15MHz Ch132597 RB1 Offset0



PCC 5MHz Ch132504 RB1 Offset0 SCC 15MHz Ch132597 RB1 Offset74



PCC 5MHz Ch132375 RB25 Offset0 SCC 10MHz Ch132447 RB50 Offset0